



INTER-OFFICE COMMUNICATION

TO: Rich Shank, Manager, S&ES, DHMM DATE: February 24, 1983

FROM: Kim Griffith & Milton Rinehart thru Paul Flanigan, Mgr., ES, DHMM

SUBJECT: Groundwater Contamination at American Cyanamid (#04-84-0023)

In his 1/26/83 IOC to you, Pat Gorman requested clarification of regulations and guidance concerning remedial action for groundwater contamination at American Cyanamid.

Our understanding of this situation, based on written and verbal communication with Gorman and Steve Thacker, is:

1. At least one well at this facility has shown gross contamination of one indicator parameter, TOH. The contaminant that produced this high parameter is now known to be 1,2-Dichloroethane.
2. American Cyanamid has acknowledged contamination. Their consultant has prepared a plan to determine the extent of migration of the plume.
3. This facility believes it has a Special Term and Condition on its permit which requires them to take remedial action when groundwater contamination is suspected.
4. Some or all of the monitoring wells at this facility have been improperly constructed or placed.
5. Gorman does not "consider the groundwater problem to be an imminent hazard to human health since there are no known water supplies nearby."

Gorman had questions about Ohio EPA's authority to require remedial action and supervise the development and implementation of a groundwater quality assessment plan. He is particularly concerned that 1) according to the regulations, contamination cannot be determined until the first four quarters of data and the first semi-annual sampling of indicator parameters have been taken and statistically compared; 2) the ST&C mentioned above is more stringent than the regulations and therefore unenforceable; and 3) the remedial action plan proposed by American Cyanamid is incomplete.

First of all, Gorman is correct in his belief that the only determination of contamination allowed by the regs is a statistical comparison that yields significant results. The regulations do not address the situation where contamination is known to exist during that time before the first semi-annual sampling is done. The authors of 265.90 through 94 assumed that facilities would know if they had groundwater contamination before November 19, 1980 and therefore would go immediately into a groundwater quality assessment program. (This is the alternate groundwater monitoring system described in OAC 3745-65-90.) Of course, they assumed wrong. As a result, we have no specific regulatory authority to require a facility to implement a groundwater quality assessment program and remedial action before a statistical test indicates contamination. The only direct regulatory authority that we are aware of is in Section 6111.03(H) of the Water Pollution Control Act and Section 3734.30 of SB 269. The Water Pollution Control Act states that the Director of the



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Ohio EPA may "issue, modify, or revoke orders to prevent, control or abate water pollution [through] prohibiting or abating discharging of sewage, industrial waste, or other wastes in the waters of the state" which includes groundwater by definition.

Under SB 269 the Director may "initiate appropriate action ... to abate the pollution or protect public health or safety [if he] determines that the condition of a hazardous waste facility ... constitutes a substantial threat to public health or safety or results in air or water pollution."

Section 6111.03(H) sounds like something we could use, although Paula doesn't think this provision has actually been applied to groundwater before.

I'm not sure if Section 3734.30 of SB 269 is applicable to this situation. On one hand, Gorman doesn't believe American Cyanamid's groundwater problem represents an "imminent hazard" and so it probably does not constitute a "substantial threat to public health or safety." On the other hand, their activities have resulted in water pollution, so maybe we could use this provision if we had to.

In this particular case, it should be unnecessary to use a Director's order to formally require American Cyanamid to develop and implement a groundwater quality assessment plan. Facilities are required to develop a groundwater quality assessment plan when their semi-annual sampling of indicator parameters yields results that are significantly different from the initial data. American Cyanamid has not yet taken its first semi-annual sampling. However, they have completed four quarters of sampling and therefore have a complete set of initial background data. The last sample was taken on October 6, 1982. People who have called in asking when they should do their first semi-annual sampling have been told to do it approximately 6 months after taking the last quarterly sample. This would make American Cyanamid's next sampling date sometime early in April. However, this six month waiting period is no more than an unofficial policy and will probably not be applied to all facilities depending on their circumstances. The regulatory requirement is to sample the indicator parameters twice a year. No specific times are given to do the sampling. Therefore, there is no reason why American Cyanamid shouldn't be instructed to do their first semi-annual sampling as soon as they can arrange it or within a time you specify. The results of analysis should get them into a groundwater quality assessment program as required by OAC 3745-65-93.

Secondly, we do not believe that American Cyanamid has a Special Term and Condition which requires them to clean up the groundwater. The statement that Gorman quoted in his IOC ("Any significant variation in water quality observed in the monitoring wells must be reported to the Ohio EPA immediately and plans begun to rectify any migration of contamination from the site") is not found in American Cyanamid's ST&C's but in an attachment to an ST&C entitled "Outline of Information Requirements for the Conduct of a Hydrogeological Assessment

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of Hazardous Waste Storage, Treatment and Disposal Facilities." The requirement quoted above demands only that plans be developed to rectify contamination. There's no language about setting a schedule for implementation. We don't believe that this outline requirement can be enforced as an ST&C or be construed to mean that they will take action to rectify groundwater contamination.

Recommendations

Write a letter to American Cyanamid from either Rich Shank or Chuck Wilhelm. Include in the contents:

1. A statement summarizing their situation as we see it.
2. Acknowledgment of their intent to assess the extent of groundwater contamination and willingness to clean it up, as per their permit condition.
3. Instruct them to work with SEDO in developing and implementing all phases of their plans and activities. (This addresses Gorman's concern about plan completeness.) Inform them that their plans will be reviewed by both District Office and Central Office Groundwater Unit staff. (Have them cc: Milton Rinehart on all written plan developments. Rinehart and Kim Griffith will return their comments to Gorman.) Their final plan must be approved by the District Office facility contact before it is implemented.
4. The plan should address the adequacy of the current monitoring well system. (Get some specifics on this from Steve Thacker or Gorman. From what we understand from Thacker, there's a possibility that some contamination could be getting into the groundwater through improperly designed monitoring wells. Ask him about this.) Also have them address the possibility of contamination from their surface impoundments and abandoned landfills.
5. Instruct American Cyanamid to go ahead with their semi-annual sampling of indicator parameters and the statistical analysis when they receive the results. Please refer them to the November 9, 1982 guidance document which demonstrates the appropriate statistical procedures. Remind them that results indicating contamination require notification to the Director of Ohio EPA and the U.S. EPA Regional Administrator within 15 days of receiving the results of analysis.
6. Put them on whatever compliance schedule you think is appropriate for this initial level of involvement.

We do not recommend that American Cyanamid's Part B be called in as the sole means of addressing their groundwater problem. However, it would put them on a compliance schedule with some teeth in it, since we/the Board can threaten to deny them a permit if they don't comply.

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Please cc: Milton and Kim on all correspondence concerning this matter.

Also, you should probably coordinate your activities concerning this facility with Bob Phelps of Industrial Wastewater.

KG/MR/PF/kjl

cc: Pat Gorman
Bob Phelps
Steve Thacker